

What is claimed is:

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1. A workpiece guide for guiding and supporting workpieces during cutting operations of a cutting device having at least one rail and a work surface, said workpiece guide comprising:

an elongated body; and

an infeed extension integral to said elongated body.

2. The workpiece guide of claim 1, wherein said elongated body has an infeed end and an outfeed end and further comprises two parallel side walls and top and bottom walls said infeed extension integral to said infeed end of said elongated body and comprising an infeed platform adjacent to each of said two side walls.

3. The workpiece guide of claim 2, wherein said infeed extension further comprises at least one support adapted to slidably support said infeed extension on the at least one rail.

4. The workpiece guide of claim 3, wherein said at least one support comprises an elongated member attached to the underside of said infeed extension having a surface adapted to contact at least a portion of the rail.

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5. The workpiece guide of claim 2, wherein each said infeed platform further comprises an adjustment mechanism.

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6. The workpiece guide of claim 5, wherein each said adjustment mechanism comprises a threaded bore in each said infeed platform having a threaded member disposed therethrough, said threaded member adapted to exert an opposing force on the at least one rail of the saw and having a base portion and a head portion.

7. The workpiece guide of claim 6, wherein said base portion of said threaded member is adapted to slidably engage the at least one rail.

8. The workpiece guide of claim 6, wherein said head portion of said threaded member is recessed within the surface of said infeed platform.

9. The workpiece guide of claim 2, further comprising a clamp positioned adjacent to the at least one rail of the saw, for attaching said workpiece guide to the at least one rail.

10. The workpiece guide of claim 9, wherein the clamp comprises a cam and a clamp plate, said cam journaled for rotation about a shaft, said shaft attached to said workpiece guide perpendicular to said elongated body, said clamp plate having a surface complimentary in shape to said cam and positioned between said cam and the at least one rail.

11. The workpiece guide of claim 10, wherein rotation of said cam brings said cam into frictional contact with said clamp plate and said clamp plate into frictional contact with the at least one rail.

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12. The workpiece guide of claim 10, wherein said clamp further comprises a lever integral to said cam, said lever for rotating said clamp about said shaft.

13. The workpiece guide of claim 1, wherein said elongated body comprises a saw fence.

14. The workpiece guide of claim 1 wherein the cutting device is a table saw.

15. A saw comprising:

a work surface comprising a substantially horizontal plane having an infeed edge and an outfeed edge;

a rail system comprising an infeed rail disposed along said infeed edge and an outfeed rail disposed along said outfeed edge; and

a workpiece guide slidably disposed on said rail system comprising an elongated body and an infeed extension, said elongated body having an infeed end and an outfeed end.

16. The saw of claim 15, wherein said elongated body has an infeed end and an outfeed end and further comprises two side walls oriented perpendicular to the work surface, said infeed extension integral to said infeed end of said body and comprising infeed platforms adjacent to each of said two side walls.

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17. The saw of claim 16, wherein said infeed extension is slidably supported by said infeed rail and said infeed platforms overhang said infeed rail.

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18. The saw of claim 17, wherein said infeed extension further comprises at least one support adapted to slidably support said infeed extension on said infeed rail.

19. The saw of claim 18, wherein said at least one support comprises an elongated member having a complimentary shape to at least a portion of said infeed rail.

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20. The saw of claim 19, wherein each said infeed platform further comprises an adjustment mechanism.

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21. The saw of claim 20, wherein said adjustment mechanism of each said infeed platforms comprises a threaded bore in each said infeed platform having a threaded member disposed therethrough, said threaded member having a base portion and a head portion and adapted to exert an opposing force on said infeed rail.

22. The saw of claim 21, wherein said base portion of said threaded member is adapted to slidably engage said infeed rail.

23. The saw of claim 21, wherein said head portion of said threaded member is recessed within the surface of said infeed platform.

24. The saw of claim 16, further comprising a clamp positioned adjacent to said infeed rail, for fixedly clamping said workpiece guide to said infeed rail.

25. The saw of claim 24, wherein the clamp comprises a cam and a clamp plate, said cam journaled for rotation about a shaft, said shaft attached to said workpiece guide perpendicular to said elongated body, at least a portion of said clamp plate having a surface complimentary in shape to said cam and positioned between said cam and said infeed rail.

26. The saw of claim 25, wherein rotation of said cam brings said cam into frictional contact with said clamp plate and said clamp plate into frictional contact with said infeed rail.

27. The workpiece guide of claim 26, wherein said clamp further comprises a lever for actuation of said cam about said shaft, said lever integral to said cam.

28. The workpiece guide of claim 15, wherein said elongated body comprises a saw fence.

29. The saw of claim 15, wherein said infeed rail comprises an elongated member having a U-shaped cross-section disposed adjacent to said infeed edge of said work surface, and said outfeed rail comprises an elongated member having an L-shaped cross-section and being disposed adjacent to said outfeed edge of said work surface.

30. The saw of claim 29, wherein said infeed rail abuts said infeed edge of said work surface and said outfeed rail abuts said outfeed edge of said work surface.

31. The saw of claim 30, wherein said infeed rail defines a trough having an inner arm, an outer arm, and a bottom, and said outfeed rail further comprises a mounting plate and a bracket plate.

32. The saw of claim 31, wherein said inner arm of said infeed rail is attached to said infeed edge of said work surface and said mounting plate of said outfeed rail is attached to said outfeed edge of said work surface.

33. The saw of claim 15, further comprising:

a support structure;

a housing positioned atop said support structure, said work surface supported by said housing; and

a debris collection system attached to said support structure positioned beneath said housing and comprising an inclined flow surface having a lower edge, and at least one side edge.

34. The saw of claim 33, wherein:

said at least one side edge of said flow surface further comprises at least one flange integral thereto for directing debris falling thereon onto said flow surface; and

said debris collection system further comprises a debris reservoir disposed along the lower edge of said flow surface for accepting debris from said flow surface.

35. The saw of claim 34, wherein said at least one flange is angled upward relative to the plane of said inclined flow surface.

36. The saw of claim 34, wherein said inclined flow surface is disposed at an angle with said lower edge adjacent to and beneath said outfeed edge.

37. The saw of claim 36, wherein said debris reservoir further comprises a chamber having two or more integral sides, an integral bottom, and an open top for accepting debris from said flow surface, said open top disposed along the lower edge of said flow surface.

38. The saw of claim 37, wherein housing has an outer perimeter and one of said lower edge or said at least one side edge is positioned outside of said outer perimeter of said housing.

39. The saw of claim 38, wherein said saw further comprises a work surface having an outer perimeter and one of said lower edge or said at least one side edge is positioned outside of said outer perimeter of said work surface.

40. A saw comprising:

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a support structure;

a housing positioned atop said support structure and comprising a cutting member adapted to cut workpieces; and

a debris collection system attached to said support structure positioned beneath said housing and comprising an inclined flow surface having a lower edge and at least one side edge.

41. The saw of claim 40, wherein:

said at least one side edge of said flow surface further comprises at least one flange integral thereto for directing debris falling thereon onto said flow surface; and

said debris collection system further comprises a debris reservoir disposed along the lower edge of said flow surface for accepting debris from said flow surface.

42. The saw of claim 41, wherein said at least one flange is angled upward relative to the plane of said inclined flow surface.

43. The saw of claim 41, wherein said saw further includes an infeed edge and an outfeed edge and said inclined flow surface is disposed at an angle with said lower edge adjacent to and beneath said outfeed edge.

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44. The saw of claim 41, wherein said debris reservoir further comprises a chamber having two or more integral sides, an integral bottom, and an open top for accepting debris from said flow surface, said open top disposed along the lower edge of said flow surface.

45. The saw of claim 41, wherein body has an outer perimeter and one of said lower edge or said at least one side edges is positioned outside of said outer perimeter of said housing.

46. The saw of claim 41, wherein said saw further comprises a work surface having an outer perimeter and one of said lower edge or said at least one side edges is positioned outside of said outer perimeter of said work surface.

47. The saw of claim 40, further comprising:

a work surface attached atop said housing comprising a substantially horizontal plane having an infeed edge and an outfeed edge;

a guide rail system comprising an infeed rail disposed along said infeed edge and an outfeed rail disposed along said outfeed edge;

a workpiece guide slidably disposed on said guide rail system comprising an elongated body and an infeed extension, said elongated body having an infeed end and an outfeed end;

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48. The saw of claim 47, wherein said elongated body has an infeed end and an outfeed end and further comprises two side walls oriented perpendicular to the work surface, said infeed extension integral to said infeed end of said body and comprising infeed platforms adjacent to each of said two side walls.

49. The workpiece guide of claim 48, wherein said infeed extension is slidably supported by said infeed rail.

50. The workpiece guide of claim 49, wherein said infeed extension further comprises at least one support adapted to slidably support said infeed extension on said infeed rail.

51. The workpiece guide of claim 50, wherein said at least one support comprises an elongated member attached to the underside of said infeed extension having a complimentary shape to at least a portion of said infeed rail.

52. The workpiece guide of claim 48, wherein each said infeed platforms further comprises an adjustment mechanism.

53. The workpiece guide of claim 52, wherein said adjustment mechanism of each said infeed platforms comprises a threaded bore in each said infeed platform having a threaded member disposed therethrough, said threaded member having a base portion and a head portion and adapted to exert an opposing force on said infeed rail.

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54. The workpiece guide of claim 53, wherein said base portion of said threaded member is adapted to slidably engage said infeed rail.

55. The workpiece guide of claim 53, wherein said head portion of said threaded member is recessed within the surface of said infeed platform.

56. The workpiece guide of claim 48, further comprising a clamp positioned adjacent to said infeed rail, for clamping said workpiece guide said infeed rail.

57. The workpiece guide of claim 56, wherein the clamp comprises a cam and a clamp plate, said cam journaled for eccentric rotation about a shaft, said shaft attached to said workpiece guide perpendicular to said elongated body said clamp plate having a cam-shaped surface and being positioned between said cam and said infeed rail.

58. The workpiece guide of claim 57, wherein rotation of said cam brings said cam into frictional contact with said clamp plate and said clamp plate into frictional contact with said infeed rail.

59. The workpiece guide of claim 58, wherein said clamp further comprises a lever for actuation of said cam about said shaft, said lever integral to said cam perpendicular to the axis formed by said shaft.

60. The workpiece guide of claim 48, wherein said elongated body comprises a saw fence.

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61. A saw for cutting workpieces having a work surface with an infeed edge and an outfeed edge, said saw comprising:

a guide rail system comprising an infeed rail having a U-shaped cross-section disposed adjacent to said infeed edge of said work surface, and an outfeed rail having an L-shaped cross-section and disposed adjacent to said outfeed edge of said work surface.

62. The saw of claim 61, wherein said infeed rail abuts said infeed edge of said work table and said outfeed rail abuts said outfeed edge of said work surface.

63. The saw of claim 62, wherein said infeed rail defines a trough having an inner arm, an outer arm, and a bottom and said outfeed rail further comprises a mounting plate and a bracket plate.

64. The saw of claim 63, wherein said inner arm of said infeed rail is attached to said infeed edge of said work surface and said outfeed rail abuts said outfeed edge of said work surface and said mounting plate of said outfeed rail is attached to said outfeed edge of said work surface.

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65. The saw of claim 61, further comprising:

a workpiece guide slidably disposed on said guide rail system comprising an elongated body and an infeed extension, said elongated body having an infeed end and an outfeed end;

66. The saw of claim 65, wherein said elongated body has an infeed end and an outfeed end and further comprises two side walls oriented perpendicular to the work surface, said infeed extension integral to said infeed end of said body and comprising infeed platforms adjacent to each of said two side walls.

67. The workpiece guide of claim 66, wherein each said infeed extension is slidably supported by said infeed rail.

68. The workpiece guide of claim 67, wherein said infeed extension further comprises at least one support adapted to slidably support said infeed extension on said infeed rail.

69. The workpiece guide of claim 68, wherein said at least one support comprises an elongated member having a complimentary shape to at least a portion of said infeed rail.

70. The workpiece guide of claim 66, wherein each said infeed platforms further comprises an adjustment mechanism.

71. The workpiece guide of claim 70, wherein said adjustment mechanism of each said infeed platforms comprises a threaded bore in each said infeed platform having a threaded member disposed therethrough, said threaded member having a base portion and a head portion and adapted to exert an opposing force on said infeed rail.

72. The workpiece guide of claim 71, wherein said base portion of said threaded member is adapted to slidably engage said infeed rail.

73. The workpiece guide of claim 71, wherein said head portion of said threaded member is recessed within the surface of said infeed platform.

74. The workpiece guide of claim 66, further comprising a clamp positioned adjacent to said infeed rail, for clamping said workpiece guide said infeed rail.

75. The workpiece guide of claim 74, wherein the clamp comprises a cam and a clamp plate, said cam journaled for eccentric rotation about a shaft, said shaft attached to said workpiece guide perpendicular to said elongated body, and adjacent to said infeed rail, said clamp plate positioned between said cam and said infeed rail.

76. The workpiece guide of claim 75, wherein rotation of said cam brings the surface of said cam into frictional contact with said clamp plate and said clamp plate into frictional contact with said infeed rail.

77. The workpiece guide of claim 76, wherein said clamp further comprises a lever for actuation of said cam about said shaft, said lever integral to said cam perpendicular to the axis formed by said shaft.

78. The workpiece guide of claim 70, wherein said elongated body comprises a saw fence.

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